

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) Pulse booster circuit, comprising:

[-] an input comprising first and second input terminals for receiving input voltage pulses having a first magnitude;

[-] an output comprising first and second output terminals;

[-] an electric energy storage buffer having an input capable of being charged by at least part of said input voltage pulses;

[-] pulse generator ~~means~~ having an input capable of being coupled to said energy storage buffer, the pulse generator means being ~~designed~~ configured to generate output voltage pulses having a second magnitude, using energy from ~~the~~ said energy storage buffer; and

buffer charging circuit configured to sense a voltage difference between said first and second input terminals and to charge said energy storage buffer from said first and second input terminals in response to sensing said voltage difference exceeding a first predetermined threshold.

2-5. (Canceled)

6. (Currently amended) Pulse booster circuit according to claim 51, wherein said buffer charging ~~means are designed~~ circuit is configured to connect said energy storage buffer with at least one of said ~~pulse transfer paths~~ first and second input terminals in response to sensing said voltage difference exceeding said first predetermined threshold.

7. (Currently amended) Pulse booster circuit according to claim 51, wherein said buffer charging ~~means comprise~~ circuit comprises a first breakdown switch coupled between said energy storage buffer and at least one of said ~~pulse transfer paths~~ first and second input terminals, ~~said breakdown switch preferably comprising a sparkgap or SIDAC.~~

8. (Currently amended) Pulse booster circuit according to claim 51, wherein said buffer charging ~~means comprise rectifying means~~ circuit comprises a rectifier.

9. (Currently amended) Pulse booster circuit according to claim 1, further comprising buffer discharging ~~means~~ circuit adapted to sense a voltage level of the energy storage buffer and to discharge said energy storage buffer at least partly into said input of said pulse generator ~~means~~ in response to sensing said voltage level exceeding a second predetermined threshold.

10. (Currently amended) Pulse booster circuit according to claim 9, wherein said buffer discharging ~~means are designed~~ circuit is configured to connect said energy storage buffer with said pulse generator ~~means~~ in response to sensing said voltage level exceeding said second predetermined threshold.

11. (Currently amended) Pulse booster circuit according to claim 9, wherein said buffer discharging ~~means comprise~~ circuit comprises a second breakdown switch coupled between said energy storage buffer and said pulse generator ~~means, said breakdown switch preferably comprising a sparkgap or SIDAC.~~

12. (Currently amended) Pulse booster circuit according to claim 9, wherein said second predetermined threshold is lower than said

first predetermined threshold.

13. (Currently amended) Pulse booster circuit according to claim 1, wherein said pulse generator ~~means~~ comprises a transformer.

14-15. (Canceled)

16. (Currently amended) Pulse booster circuit according to claim 1, comprising:

[-] a series arrangement of a first breakdown switch and a storage capacitor, coupled between said two first and second input terminals;

[-] a transformer having an input winding connected in series with a second breakdown switch, said series arrangement of second breakdown switch and transformer input winding being connected in parallel to said storage capacitor;

said transformer having a first output winding connected to said first output terminal.

17. (Original) Pulse booster circuit according to claim 16, wherein said transformer has a second output winding connected to

said second output terminal.

18. (Canceled)

19. (Currently amended) Driver system for a gas discharge lamp, comprising a lamp current, ~~and an ignition pulses generating means~~ generator and a pulse booster circuit according to claim 1.

20. (Currently amended) A lamp holder for a gas discharge lamp, comprising:

- [-] a driver input for connecting to a lamp driver system;
- [-] lamp connector terminals for electrical contact with a lamp received by said holder;
- [-] and a pulse booster circuit according to claim 1, accommodated within said holder, having its input connected to said driver input of said lamp holder and having its output connected to said lamp connector terminals of said lamp holder.

21. (New) Pulse booster circuit, comprising:

an input comprising first and second input terminals for receiving input voltage pulses having a first magnitude;

an output comprising first and second output terminals;

an electric energy storage buffer having an input capable of being charged by at least part of said input voltage pulses;

pulse generator having an input capable of being coupled to said energy storage buffer, the pulse generator being configured to generate output voltage pulses having a second magnitude, using energy from said energy storage buffer; and

buffer discharging circuit adapted to sense a voltage level of the energy storage buffer and to discharge said energy storage buffer at least partly into said input of said pulse generator in response to sensing said voltage level exceeding a predetermined threshold.

22. (Currently amended) Pulse booster circuit according to claim 21, wherein said buffer discharging circuit is configured to connect said energy storage buffer with said pulse generator in response to sensing said voltage level exceeding said predetermined threshold.

23. (Currently amended) Pulse booster circuit according to claim 21, wherein said buffer discharging circuit comprises a breakdown

switch coupled between said energy storage buffer and said pulse generator.

24. (Currently amended) Pulse booster circuit according to claim 21, wherein said second predetermined threshold is lower than said first predetermined threshold.

25. (New) Pulse booster circuit, comprising:

an input comprising first and second input terminals for receiving input voltage pulses having a first magnitude;

an output comprising first and second output terminals;

an electric energy storage buffer having an input capable of being charged by at least part of said input voltage pulses;

pulse generator having an input capable of being coupled to said energy storage buffer, the pulse generator means being configured to generate output voltage pulses having a second magnitude, using energy from said energy storage buffer;

a series arrangement of a first breakdown switch and a storage capacitor, coupled between said first and second input terminals;
and

a transformer having an input winding connected in series with

a second breakdown switch, said series arrangement of second breakdown switch and transformer input winding being connected in parallel to said storage capacitor;
said transformer having a first output winding connected to said first output terminal.

26. (New) Pulse booster circuit according to claim 25, wherein said transformer has a second output winding connected to said second output terminal.

27. (New) A lamp holder for a gas discharge lamp, comprising:
a driver input for connecting to a lamp driver system;
lamp connector terminals for electrical contact with a lamp received by said holder;
and a pulse booster circuit according to claim 25, accommodated within said holder, having its input connected to said driver input of said lamp holder and having its output connected to said lamp connector terminals of said lamp holder.